

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371**U.S. APPLICATION NO. (If known, see 37 CFR 1.5)  
10/562,467INTERNATIONAL APPLICATION NO.  
PCT/JP2004/009647INTERNATIONAL FILING DATE  
July 7, 2004PRIORITY DATE CLAIMED  
July 10, 2003TITLE OF INVENTION  
PLASMA GENERATING ELECTRODE AND PLASMA REACTORAPPLICANTS FOR DO/EO/US  
Yukio MIYAIRI et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☐ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☒ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☐ The US has been elected (Article 31).
5. ☐ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
  - c. ☐ The International Application was filed in English.
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

**Items 11 to 20 below concern document(s) or information included:**

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A preliminary amendment.
14. ☐ An Application Data Sheet under 37 CFR 1.76.
15. ☐ A substitute specification.
16. ☒ A power of attorney and/or change of address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13~~ter~~.2 and 37 CFR 1.821 - 1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Transmittal of Power of Attorney.

U.S. APPLICATION NO. (if known, see 37 C.F.R. 1.5) 10/562,467		INTERNATIONAL APPLICATION NO. PCT/JP2004/009647		ATTORNEY'S DOCKET NUMBER 126464	
21. <input type="checkbox"/> The following fees are submitted:				<b>CALCULATIONS</b>	
				<b>PTO USE ONLY</b>	
<b>BASIC NATIONAL FEE (37 CFR 1.492(a)):</b> ..... \$ 300.00				\$	
<b>SEARCH FEE (37 CFR 1.492(b)(1)-(3)):</b>  International preliminary examination report or written opinion prepared by the USPTO as IPEA or ISA and favorable as to novelty, inventive step, and industrial applicability for all claims presented in the application entering the national stage ..... \$ 0.00  International search fee (37 CFR 1.445(a)(2)) paid to USPTO as ISA..... \$ 100.00  International search report provided to USPTO no later than the time at which the search fee is paid ..... \$ 400.00  All situations not provided for above ..... \$ 500.00				\$	
<b>EXAMINATION FEE (37 CFR 1.492(c)(1)-(2)):</b>  International preliminary examination report or written opinion prepared by the USPTO as IPEA or ISA and favorable as to novelty, inventive step, and industrial applicability for all claims presented in the application entering the national stage ..... \$ 0.00  All situations not provided for above ..... \$ 200.00				\$	
Surcharge of \$130.00 for furnishing the search fee, the examination fee or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).				\$	
TOTAL PAGES OF APPLICATION OVER 100 ( - 100)	+ 50	= †	x 250 =	\$	
†round up to next integer					
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
TOTAL CLAIMS	- 20	=	x 50.00 =	\$	
INDEPENDENT CLAIMS	- 3	=	x 200.00 =	\$	
MULTIPLE DEPENDENT CLAIM(S)(if applicable)			+ 360.00 =	\$	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				\$	
<b>SUBTOTAL =</b>				\$	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				\$	
<b>TOTAL NATIONAL FEE =</b>				\$	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				\$	
<b>TOTAL FEES ENCLOSED =</b>				\$	
				Amount to be refunded:	\$
				charged:	\$
a. <input type="checkbox"/> Check No. _____ in the amount of \$ _____ to cover the above fees is enclosed.					
b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.					
c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>15-0461</u> . A duplicate copy of this sheet is enclosed.					
d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. <b>Credit card information should not be included on this form.</b> Provide credit card information and authorization on PTO-2038.					
<b>NOTE:</b> Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.					
SEND ALL CORRESPONDENCE TO: OLIFF & BERRIDGE, PLC Customer Number: 25944					
Date <u>March 9, 2006</u>			NAME: <u>James A. Oliff</u> REGISTRATION NUMBER: <u>27,075</u>		
			NAME: <u>John W. Fitzpatrick</u> REGISTRATION NUMBER: <u>41,018</u>		

**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Yukio MIYAIRI et al.

Application No.: 10/562,467

Filed: December 27, 2005

Docket No.: 126464

For: PLASMA GENERATING ELECTRODE AND PLASMA REACTOR

**TRANSMITTAL OF POWER OF ATTORNEY AND  
STATEMENT UNDER 37 CFR § 3.73(b)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith is a Power of Attorney from the Assignees.

In compliance with 37 CFR §3.73(b), the undersigned hereby states that NGK INSULATORS, LTD.; HONDA MOTOR CO., LTD. are together the assignees of the entire right, title and interest in the patent application identified above by virtue of an assignment from the inventors of the patent application identified above. A copy of the assignment is attached hereto and is concurrently being submitted for recordation.

The undersigned is authorized to act on behalf of the assignee.

In accordance with 37 CFR §1.36(a), submission of this Power of Attorney revokes any powers of attorney previously given.

**ALL CORRESPONDENCE IN CONNECTION WITH THIS APPLICATION SHOULD  
BE SENT TO OLIFF & BERRIDGE, PLC, CUSTOMER NO. 25944, TELEPHONE  
(703) 836-6400.**

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

John W. Fitzpatrick  
Registration No. 41,018

JAO:JWF/crh  
Date: March 9, 2006

**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**GENERAL POWER OF ATTORNEY  
TO PROSECUTE APPLICATIONS BEFORE  
THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Assignee Name and Address: NGK Insulators, Ltd.  
2-56, Suda-cho, Mizuho-ku, Nagoya-city  
Aichi-prefecture, 467-8530 Japan

appoints the patent practitioners associated with Oliff & Berridge, PLC Customer  
Number 25944 to represent it before the United States Patent and Trademark Office in  
connection with any and all U.S. patent applications assigned to the above-named assignee.

The undersigned is authorized to act on behalf of the assignee.

**ALL CORRESPONDENCE IN CONNECTION WITH THIS APPLICATION SHOULD  
BE SENT TO OLIFF & BERRIDGE, PLC, CUSTOMER NO. 25944, TELEPHONE  
(703) 836-6400.**

October 28, 2004  
Date

Takafumi Hochi  
Signature

Typed Name: Takafumi Hochi

Title: General Manager, Legal Affairs &  
Intellectual Property Department

100 100 100 100 100

**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Yukio MIYAIRI et al.

Application No.: New U.S. National Stage of PCT/JP2004/009647

Filed: December 27, 2005

Docket No.: 126464

For: PLASMA GENERATING ELECTRODE AND PLASMA REACTOR

**SPECIFIC POWER OF ATTORNEY**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

HONDA MOTOR CO., LTD., ☐ owner or ☒ co-owner of the entire right, title and interest in the above patent application by virtue of:

- a. ☐ being an inventor, or
- b. ☒ an Assignment
  - i. ☒ copy attached, or
  - ii. ☐ recorded at Reel \_\_\_\_\_, Frame \_\_\_\_\_ of the Patent Office microfilm records,

hereby appoints the patent practitioners associated with Oliff & Berridge, PLC Customer No. 25944 as attorneys of record to prosecute this application and all continuations and divisions thereof, and to transact all business in the Patent and Trademark Office.

The undersigned has reviewed the chain of title and confirms that the aforesaid title is in the owner. The undersigned is authorized to execute this document as or on behalf of the owner.

**ALL CORRESPONDENCE IN CONNECTION WITH THIS APPLICATION  
SHOULD BE SENT TO OLIFF & BERRIDGE, PLC, CUSTOMER NO. 25944,  
TELEPHONE (703) 836-6400.**

3 FEB 2006  
Date

M. I. Hagino  
Signature

Typed Name: Michiyoshi HAGINO  
Senior Managing and  
Title: Representative Director  
(if acting on behalf of an Owner)

04700257  
H104-2160  
Ver1-0727

# Assignment

## 譲渡証

Japanese Language Assignment

(1-8) Insert Name(s) of Inventor(s)  
発明者の氏名を記入すること

(1) Yukio MIYAIRI

(2) Yasumasa FUJIOKA

(3) Masaaki MASUDA

(4) Takeshi SAKUMA

(5)

(6)

(7)

(8)

各々の署名人に対して支払われた総額 1 ドル (\$1.00) および他の適切な有価約因を考慮して、各々の署名人は

In consideration of the sum of one dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned, each undersigned agrees to assign, and hereby does assign, transfer and set over to

(9) Insert Name of Assignee  
譲受人氏名を記入すること

(9) NGK Insulators, Ltd. and Honda Motor Co., Ltd.

(10) Insert Address of Assignee  
譲受人住所を記入すること

(10) 2-56, Suda-cho, Mizuho-ku, Nagoya-city, Aichi-prefecture, 467-8530 Japan and

1-1, Minami-Aoyama 2-chome, Minato-ku, Tokyo, 107-8556 Japan

(以降譲受人と称する)に対して、譲渡に同意し、ここに譲渡し、米国法第 35 章第 100 条に定義されるごとく、この発明および仮出願、非仮出願、分割出願、継続出願、国際出願、差替え出願、及び再発行出願、および前記発明に関するすべての特許証、延長証、再発行証、再審査証を含む特許のための全ての出願において、アメリカ合衆国のためのすべての権利、所有権、および利益を譲受人の継承人、後継者、被譲渡者、および法定代理人に移転および譲渡し、

(hereinafter designated as the Assignee) and Assignee's heirs, successors, assigns and legal representatives, the entire right, title and interest for the United States of America as defined in 35 U.S.C. §100, in the invention, and in all applications for patent including any and all provisional, non-provisional, divisional, continuation, international, substitute, and reissue application(s), and all Letters Patent, extensions, reissues and reexamination certificates that may be granted on the invention known as

(11) Insert Identification such as Title, Case Number, or Foreign Application Number  
名称、事件番号、もしくは外国出願番号のような確認事項を記入のこと

(11) PLASMA GENERATING ELECTRODE AND PLASMA REACTOR

(Attorney Docket No.  
弁護士整理番号

)



前記署名人が下記の日付でアメリカ合衆国において特許出願を履行するものであり、

or

もしくは

(12) **Insert Date of Signing of Application**

出願に署名する日付を記入のこと

(12) on \_\_\_\_\_

(13) **Alternative Identification for filed applications**

提出された出願のための代案確認事項

(13) U.S. application Serial Number \_\_\_\_\_

右記の米国出願整理番号で

filed \_\_\_\_\_

上記日付において提出されたものである。

1) 各々の署名人は前記発明のための出願関係および、継続出願、分割出願、再発行出願およびこの件に関しての発行する特許において、必要な全ての書類を履行することに同意し、譲受人が必要と思われる、このような出願および特許に関しての別途譲渡証を履行することにも同意する。

2) 各々の署名人は、前記発明のための、出願もしくは継続出願、もしくはその分割出願、特許もしくはそれに基づく再発行出願に関して宣言されるインターフェレンスに関して必要な全ての書類を履行することに同意し、証拠取得およびそのようなインターフェレンスを進行するにあたり、いかなる方法においても前記譲受人と協力することに同意する。

3) 各々の署名人は、すべての用紙および書類を履行し、国際工業所有権保護協定の請求もしくは規定もしくは類似協定に関して必要ないかなる行為を施行することに同意する。

4) 各々の署名人は、前記譲受人に対して有効な米国特許の承認を取得し、維持し、もしくは再発行もしくは再審査により、確認するために、必要なすべての積極的な行為を履行することに同意する。

5) 各々の署名人は、米国特許商標庁長官に前記出願から発生したすべての米国特許証を、全ての利益の譲受人としての前記譲受人に対して発行することを許可および請求し、ここに署名するにおいて、署名人は全ての利益を譲るためのすべての権利を有し、対立関係にある協定を過去に履行することなくもしくは将来履行しないことを誓約し、この協定が前記譲受人、譲受人の継承人、後継者、被譲渡者、および法定代理人に法的義務を負わせるものであることに同意する。

6) 各々の署名人は、この書類の記録上、米国特許商標庁の規定に従うために、必要もしくは所望であればこの譲渡証にさらに確認事項を記入するための権利が オリフ・ベッジ法律弁護士事務所(Oliff & Berridge)に付与されていることをここに承認する。

for which the undersigned has (have) executed an application for patent in the United States of America on even date herewith

1) Each undersigned agrees to execute all papers necessary in connection with any application and any continuing, divisional or reissue applications for the invention, and any patent(s) issuing thereon, and also to execute separate assignments in connection with such applications and patents as the Assignee may deem necessary.

2) Each undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning any application or continuation or division thereof, or any patent or reissue application based thereon, for the invention, and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

3) Each undersigned agrees to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.

4) Each undersigned agrees to perform all affirmative acts which may be necessary to obtain, maintain or confirm by reissue or reexamination a grant of a valid United States patent to the Assignee.

5) Each undersigned authorizes and requests the Commissioner of the U.S. Patent and Trademark Office to issue any and all Letters Patents of the United States resulting from said application(s) to the said Assignee, as Assignee of the entire interest, and covenants that he has full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreements in conflict herewith, and agrees that this assignment is binding on him and his heirs, successors, assigns and legal representatives.

6) Each undersigned hereby grants the firm of Oliff & Berridge the power to insert on this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

証人立ち会いのもとで、署名人覧の隣の日付をもってこの署名が履行される。

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date 日付	<u>November 29 / 2005</u>	Inventor Signature 発明者署名	<u>Akihiro Miyajiri</u>	(SEAL 印)
Date 日付	<u>November 29 / 2005</u>	Inventor Signature 発明者署名	<u>Yasumasa Fujioka</u>	(SEAL 印)
Date 日付	<u>November 29 / 2005</u>	Inventor Signature 発明者署名	<u>Masaaki Masuda</u>	(SEAL 印)
Date 日付	<u>November 29 / 2005</u>	Inventor Signature 発明者署名	<u>Takeshi Sakuma</u>	(SEAL 印)
Date 日付	_____	Inventor Signature 発明者署名	_____	(SEAL 印)
Date 日付	_____	Inventor Signature 発明者署名	_____	(SEAL 印)
Date 日付	_____	Inventor Signature 発明者署名	_____	(SEAL 印)
Date 日付	_____	Inventor Signature 発明者署名	_____	(SEAL 印)

この譲渡証は(a)アメリカ合衆国内で署名される際には公証人の目前で、(b)アメリカ合衆国外で署名される際には米国領事の目前で署名されるべきである。(a)もしくは(b)が不可能な際には、下記に署名する少なくとも二人の証人の目前で署名されるべきである。

This assignment should preferably be signed before:  
(a) a Notary Public if within the U.S.A. (b) a U.S. Consul if outside the U.S.A. If neither, then it should be signed before at least two witnesses who also sign here:

Date 日付	_____	Witness 証人	_____
Date 日付	_____	Witness 証人	_____